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A SYMPOSIUM ON THE EDUCATION OF CHILDREN WITH LEARNING DISABILITIES (RUTGERS, THE STATE UNIVERSITY, APRIL 29, 1966). (TITLED SUPPLIED).

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PAPERS BY TWO SPEAKERS ARE PRESENTED, TOGETHER WITH BRIEF BIBLIOGRAPHIES (TOTALING 15 ITEMS) OF THEIR RECENT ARTICLES. "A PERSPECTIVE ON LEARNING DISABILITIES AND THE CONCEPT OF MOVEMENT EFFICIENCY" BY BARSCH, SURVEYS THE PROBLEM OF CLASSIFYING CHILDREN IN EDUCATIONAL PROGRAMS AND SUGGESTS THAT CLASSES FOR SPECIAL LEARNING DISABILITIES BE PART TIME UNITS WHICH PREPARE THE CHILDREN FOR RETURN TO OTHER CLASSES. THE CHILD'S DISABILITY DEPENDS ON THE CHILD AND ON THE TASK AND ON THE LEARNING SITUATION. AN EXPERIMENTAL CLASSROOM IN MADISON IS DESCRIBED. IN THE "ROLE OF THE CLINICAL EDUCATOR IN THE DIAGNOSIS AND TREATMENT OF LEARNING DISORDERS," BRYANT DISCUSSES THREE MAJOR AREAS OF KNOWLEDGE CRUCIAL TO DIAGNOSIS AND TREATMENT OF LEARNING DISABILITIES--(1) KNOWING THE MULTITUDE OF COMPONENT STEPS NECESSARY FOR LEARNING ANY SKILL, (2) UNDERSTANDING THE NATURE OF THE DISABILITY, AND (3) USING LEARNING PRINCIPLES TO AVOID OR OVERCOME HANDICAPS BY PROGRESSING TOWARD EACH LEARNING GOAL. THE DYSLEXIC CHILD IS USED AS AN EXAMPLE OF LEARNING DISABILITY. GUIDING PRINCIPLES INCLUDE--STARTING WITH THE MOST BASIC ELEMENT WITH WHICH THE CHILD HAS TROUBLE, MAKING THE STEPS SMALL ENOUGH (90 PERCENT CORRECT RESPONSES), AVOIDING NEGATIVE LEARNING AND CONFUSION. THE CHILD SHOULD MAKE NOTICEABLE IMPROVEMENT AT EVERY LESSON. OVERLEARNING AND REVIEWS WILL HELP KEEP RETENTION HIGH. THIS DOCUMENT IS AVAILABLE FROM NJABIC, 61 LINCOLN ST., E. ORANGE, N.J. 07017. (JA)

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SYMPOSIUM

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THE EDUCATION OF CHILDREN WITH LEARNING DISABILITIES

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THE EDUCATION OF CHILDREN WITH LEARNING DISABILITIES

RECORDS HALL, RUTGERS, THE STATE UNIVERSITY

Records Hall, Rutgers, the State University

April 29, 1966

This Symposium was concerned with those children who have good intelligence but have difficulty learning academic skills by conventional methods.

THE EDUCATION OF CHILDREN WITH LEARNING DISABILITIES

Introduction: Moderator
Dr. Virginia Bennett
Department of Educational Psychology
Graduate School of Education - Rutgers University

SPEAKERS

Ray H. Barsch, Ph.D.
Center of Behavioral Disabilities
The University of Wisconsin
Director of teaching preparation in the area of
the Neurologically Impaired and Director of
the Learning Disorders Clinic

A Perspective on Learning Disabilities and the Concept of Movement Efficiency

Dr. Barsch presented a model for diagnostic and therapeutic procedures in some cases of learning disability and discussed the results of his research in this area.

N. Dale Bryant, Ph. D.
Executive Director, Albany Study Center
for Learning Disabilities, State University of New York
Professor of Educational Psychology at the State University
and Associate Professor of Pediatrics and Psychiatry
at the Albany Medical College.

The Role of the Clinical Educator in the Diagnosis and Treatment of Learning Disorders

Dr. Bryant presented some principles of remedial instruction for the dyslexic child, and discussed characteristics common to the syndrome of dyslexia.

LEARNING DISABILITIES AND MOVEMENT EFFICIENCY

by

DR. RAY H. BARSCH

If we ever had a conference for learning *abilities* we would probably have a small group in the audience, because we're more expert at determining why children do not learn, than we are at the business of understanding how they *actually do learn*, If the child comes into the school and goes right through the regular process causing no problem to anybody, we have no idea how it happened, but if he doesn't, we will set in motion a tremendous diagnostic surge to determine the reasons for this.

We have always had a great deal of difficulty in classifying children in our educational programs. We always end up with one child or a whole group of children who defy existing categories, and with our usual penchant, we invent another category and set about determining the characteristics for that particular child so that eventually we come to a point of needing another category and another category and another.

I am personally concerned with establishing some perspective on this entire concept of learning disabilities, learning disorders, (whatever you wish to call them) so that we become clear, at least from my biased viewpoint, as to what we are talking about and where we are going with this entire concept in the years to come. First of all we are trying, I am afraid, much to the discredit of our present processes in education, to sell this concept of special learning disability as another packaging of an entity that we could not sell very clearly in the past. We have put this under the category—"if the child has a brain-injury which you cannot specify by EEG or solid neurologic evidence, then he probably belongs in the category of learning disabilities;" and we are using it as a secondary category for brain-injured children (mainly because we haven't been able to sell it under the old package). In the process we are establishing just another name for classes for brain-injured children (because we couldn't get those organized effectively). As a consequence, calling them "special learning disabilities classes" seems to be an answer. I wish to put myself on record as saying that if we continue going the route of simply substituting "special learning disabilities" as a nickname for the

neurologically impaired, neurologically handicapped, or brain-injured child, we will be missing ninety percent of the children who belong in the category of special learning disability. When we try to define the kinds of children that belong in the category of learning disabilities we are starting our definition process at the wrong end. We need to ask "what is it that the children are failing to do that we would expect them to do?" Therefore we will have to consider them as failures at matching up to some expectation. Our definition for learning disabilities ought to start with a concept of curriculum.

Any child entering the school who fulfills to the letter of the law and developmental theory all the expectancies along the line will never be placed in the category of special learning disability. Only as he begins to fail, (and he has to fail something)—he has to fail that which somebody has decided a child of his age or his kind of a problem is supposed to learn. If you accept the curricular orientation, then we need to start with "What is it that we have defined for children to learn that they do not do?" in order to classify them as learning disorders. Starting at that point, any curriculum has the potential of developing learning disorders among those people who fail to achieve. If we talk about a curriculum, we can say that in the special education firmament we have classes for deaf children, classes for blind, classes for visually handicapped, classes for gifted children, classes for the mentally retarded - trainable and educable - and classes for emotionally disturbed. Every one of those classes presumes to have a specified curriculum based upon whatever criteria may be established in each of those areas; with the intention that once placed in that kind of a curriculum, that particular child will have his needs met (to the best extent possible) and will be able to proceed with his education through that course that has been defined. Each curriculum is based upon some group of people sitting down and deciding that a particular kind of a child will be able to advance in complexity provided we establish a set of activities which are peculiar to his disabilities or to his emotional problem, (whatever it might be). Any school program defines a curriculum based upon current understanding of a given set of needs. Any child, then, who fails to meet that curriculum, is subject to the category of learning disorder. When we talk about learning disabilities there can be a deaf child who does not match up to the curriculum of deaf education; there can be a blind child who does not match up to the category of the blind curriculum there can be an educable, mentally handicapped child who is not fitting into the existing curriculum for his group. Any one of the groups may breed a child who does not fit that curriculum and those of you who are acquainted with special education are well aware that many of the people in special education

are continually looking for the kind of child to be assigned to their classroom that they read about in the textbooks at school.

For example: you graduate and are a well qualified, certifiable teacher of the deaf. You are assigned a class for deaf children and you are continually saying - "please send me a good, typical, plain, ordinary deaf child" - because by the time the children get in the class, the very same phenomenon operates in special education as operates in the regular elementary programs. In regular elementary programs it goes like this: Thirty-five bright, sharp, shining youngsters march up to the kindergarden door in September and the diagnostic process of the United States descends upon them. The kindergarden teachers of America have been forewarned that first of all, it is unlikely that any parent in the United States will have done right by their child in those first five years, so consequently you must be on the lookout for those that have been parentally stultified. Then we already know that this is the critical year for deciding upon the child's future as to whether or not he will benefit from the academic program.

So the kindergarden teacher becomes the major diagnostician for American education and we have given her every possible seminar that we can organize so that she will be acquainted with the different ways in which children can differ, and with any good fortune, a kindergarden teacher can make this diagnostic process happen. There will be at least two or three children who do not seem to listen very well.

Already a referral blank can be made out for possible inclusion in the classes for the deaf. There will be at least three or four children who just look as if they just don't have "enough marbles", and regardless of what the family background might be, there is in the mind of the kindergarden teacher, the suspicion that this may be one of those high level retarded children and a referral blank should be initiated. There are some children who seem to require the material to be placed this way (close to their faces) and we ought to have some possibility that their needs would be more appropriately met in a class for sight conservation, or maybe they are really blind and nobody has yet diagnosed them. You may even get a trainable level child coming into the kindergarden. Now, the biggest category that she can cast off are those that give evidence of some degree of emotional disturbance - which is possibly thirty-five out of thirty-six. By the time she has finished, she has whittled her group down to where she can now comfortably look at it and say that there are *five good, plain vanilla, ordinary, average children;* the rest all require some form of special work. Usually she has to wait from six months to four years before the school psycholo-

gist gets around to these children; but eventually they do. She does have five good, solid children. In the teachers' coffeeroom, she can announce to the rest of the teachers: "five good ones are coming through, watch out for them". When the five come through, the first grade teacher starts *her* magic on these children and already she has designated three reading groups. . . among the five children.

What I fail to hear, as I move through my professional life, is that the identical phenomenon happens in every one of the special classes. Teachers of blind children also have three reading groups, teachers of deaf children have three reading groups, the teachers in the educable mentally handicapped have three reading groups - everybody has three reading groups. So each child could register at kindergarden level - "which of these many reading groups does it look like I would like to be in?, and depending upon where he would like to be, he can create sufficient influence to get himself there. I have suggested to the parents of America that if they wish to have the ultimate services of their school program, they should do one of two things: Either so over-stimulate your child that he goes to school a tiger and starts tearing the building apart, being aggressive like he is at home - in the classroom - demonstrating for all to see - that this kid you *must* pay attention to! This will set a tremendous machinery into action in which the principal, all other teachers, (worried lest they get him in their class) the school psychologist, the speech therapist, the social worker, everybody will come to the rescue of little John - he will have his needs met. The second strategy is to send him to school with his chemistry box under his arm. Quickly we will tag him to be one of the scientists of the future and a whole scheme of education will go on from there.

So every child is exposed to a curriculum somebody decided in advance; it is as though we say: "these are the things a child of your age and your particular problem should be able to learn within a school setting; we have the books ordered, we have the workbooks organized, the seat work is already run off, the crayons are available. When you get into this group, we expect that you are going to go nice and clean, five days a week; when the Thanksgiving program comes, you will draw the turkey, when the Halloween project comes, you will cut out the pumpkin. When you're in a trainable mentally retarded class, and you have difficulty with the scissors - and nine of your colleagues in the class cut that pumpkin pretty nicely - you've got a learning disorder right there.

Every teacher in America has children with learning disabilities in

her class. We estimate that in every classroom in America there are at least ten children who could be classified as learning disabled children. We estimate that that is true in every college in the United States as well. When we use the definition that learning is dependent upon an individual's ability to meet the criteria of a curriculum, then any curriculum, with whatever learners are enrolled in it, becomes subject to that same set of criteria. Among this audience, sitting out there, will be people who by all standards should have doctoral degrees in Education, Psychology, Engineering, or whatever it might be, - who have been afraid to go back to the University to express their intelligence in a doctoral degree because they are unable to view themselves as being capable of passing the courses in statistics ("because they were never much good at arithmetic") they are unable to see themselves successfully passing the courses in language ("because they were never much good at that kind of thing") - those people have a learning disability. If they were to go into the course in Statistics, regardless of their nice, neat, vast 145 I.Q., and they entered the course in Statistics and failed it, they would be no different in terms of meeting the standards of a curriculum than little Charlie. when he is supposed to grasp the "oh look!, oh see!", and manage it; because by relative standards we are simply saying that in order to reach such an outcome you must follow five steps,. . . .if you can't follow the five steps, you have failed to learn as expected. This is all we are saying about all the learning disabled children! "you have failed to learn as we expected you to learn," As a consequence, what we have designed as the regular routines for achieving our goals cannot directly be applied to you, and we must come up with something else.

Our system in the past has been to define the learning disabled child on the basis of his perceptual problems. Every human being in the world has perceptual problems. It all depends upon what you ask them to perceive. At any given moment any one of you can be placed in a perceiving situation where nothing happens. Where you look at the situation as though everything is all Greek. If we asked any of you *now* to describe in detail, on paper, with sufficient clarity so that the rest of us could understand it, the theory of relativity, you would beg off from this. You know a lot of words, you know a great many ways of expressing yourself, you have a tremendous amount of knowledge, you are all successful people; but if we ask you to perceive something that you have not had any experience with, you will have a perceptual problem. You may draw the diamond, you may be able to fill in the Bender Gestalt figures better than anybody else in the world, but you know extremely little about the theory of relativity. So when we talk about perceptual disturbance we must find out what is it you are perceptually disturbed

with or about, and how important is it that you know that? We find no great difficulty, for instance, in teaching a child who is unable to draw the diamond, to draw the diamond. After you've accomplished that I don't know what that means, because there is no market for diamond drawers. Perceptual disturbance has become important in association with neurologic impairment (as though it is the entitlement of that breed). That is, in order to have a perceptual disturbance, there ought to be at least one pathway damaged someplace up there. The whole area of perceptual disturbance has been classified as a pathological expression without an understanding that perceptual disturbance occurs situationally with a perceiver who is unable to perceive something that someone wants him to perceive at that moment. You can create it for anybody at any time by simply extending beyond their levels of capability, that which they must perceive. Once you take that view, you start thinking differently about perceptual disturbance. We have not yet defined by curricular organization the total quantity of perceptual acuity demanded in a first grade, an eighth grade, a high school, etc. We have no way of defining in what manner a secondary student might have a perceptual disturbance, without benefit of brain-injury, and yet if you read long and deeply into the field of perception, you will discover that there have been many variations in perception with plain, ordinary, regular people. We have two schools of thought in perception; (1) that which we write about in terms of pathology and (2) that which actually exists. Perceptual disturbance, in a very practical sense, means that when you see the little signs saying "Stop", you feel as though you have another hundred feet at least; start putting on your brakes and discover that you misjudged it by about sixty feet and there's a bumper staring you in the face. We don't call that perceptual disturbance - that's poor driving - but this is a perceptual distortion of space. We have drivers coming out of lanes regularly saying, "I've got plenty of time, I can make it" - that we don't call a perceptual disturbance - that again is poor driving. We have people deciding that they can fit something within a given space, getting all the way over there, and then discovering: whoops!, it's too small. That's not a perceptual disturbance? It is a natural human phenomenon, depending upon how good a perceiver you become during the course of your development.

Quick demonstration — Close your eyes, everybody. O.K. Now think of a block. It is colored - divide it in half - divide it in half again, now cut the remaining pieces at right angles. How many colored sides do you have showing? Now why do you laugh? See, like any good teacher in any school, I recognize that in this audience we have a certain level of high intelligence. We have a group of successful people. Everyone of you received identical verbal instructions. There was no word within the entire set of instructions

that was difficult for you to understand. Each one of you contrived that block in whatever way you chose. Some of you have little blocks, Some of you have big blocks. Some of your blocks are made of granite. Some of you started on the basis of a city block, and as soon as the second direction came you got that mixed up, the third direction came, and you decided, whoops - this isn't the right game. Your blocks were semi-colored, fully colored, some no color; your blocks were hollow on the inside, some were filled, some of you put those blocks into two pieces by cutting them physically, some of you nodded your heads in order to cut them, some people actually lifted a finger. If we polled the entire delegation assembled here, we would discover that for that simple set of directions, we probably had as many perceptions as there are people. If I now say there is only one way to perceive those directions and that is the curriculum that we have to offer to you (and I'm going to define it that way) anybody who did not come up with the five steps that I had defined, could be classified, at that moment, as having a perceptual disturbance; and if we pressed it long enough, as having a learning disorder. So when we talk about learning disability, we are talking about a curriculum, and our judgment of failure must stem from what it is we hope to achieve. If we intend to do anything with the children and change them in any way for the better, we are preparing them for the very curriculum that they fail. If we take a deaf child, or a regular child, and wish to do any form of therapy with him, it is our intent to return him to the mainstream of education. The mainstream of education, per child, is the regular elementary system or that special unit which we have defined to meet his needs. The mainstreams of education for the deaf are the classes for the deaf, for the blind, classes for the blind, for the regular child, the classes for the average intelligence child, with none of the other problems, We do not wish to have learning disabilities associated with the fact that - "dear Charlie, you happen to have a problem for which we have no other group, and therefore you're in it." It must become a system for returning the child to the mainstream most appropriate to his particular development. As a consequence, I am completely against the idea of classes for learning disabilities as full segregated units set apart from the rest of education. If they are to be developed they should be organized on the premise that the child is going to return to the mainstream of his particular educational program. If we are going to work with children, who by the characteristics that we can define have failed in the regular elementary program, it must be our intent to return them to the regular elementary program by whatever we're going to do. If we are talking about educable mentally handicapped children - who have failed the curriculum for the educable group - it is our intent, by whatever processes we employ, to return them to the regular class for the educable

mentally handicapped so that they might benefit from the regular curriculum that has been established. Any therapeutic effort directed toward children with learning disabilities, has as its primary purpose the intent to enable the child to benefit from the curriculum designed for him.

All classes for special learning disabilities, by our thinking then, should be part time units, with the child continuing his enrollment in the parent class from whence he came. This will be his identity. Classes for learning disabilities should only be temporary arrangements, presuming upon the fact that with a higher level of specialization; with the freedom to explore, with the intent to modify an environment, we will thereby change this child for the better so that he might go back where he belongs. But he belongs someplace else! He is only on a temporary stopover in these classes in order to prepare him for the long haul. If we start classes for special learning disability children as full segregated units (as we have done in all other aspects of special education) we have added another proliferation to our total firmament and we run a possible risk: at the rate we are discovering children and counting those who cannot benefit to the maximal extent from the curriculum designed for their age and their problem, we are increasing the numbers of classes. Without the category of special learning disabilities, special education lays provincial claim upon twenty percent of the nation's children - because they're deaf, blind, physically handicapped; whatever they might be. We already have twenty percent in Special Education.

We have learned through all these years from the people in regular education, that it is a fairly standard percentage, to find at least twenty to thirty percent of all children in the regular first, second and third grade will have a significant learning problem to be concerned with seeking help. The population of that low group in the reading class (and some children will go through an entire school career always reporting to the low group; they sort of know where the low group is going to sit when they go into the next classroom). They know they are low group children. That thirty percent is now becoming the population of the special learning disability group. More so than simply having a reading problem, they have all sorts of other problems as well. We are talking about setting up specialized programs for them as full time classes, which means that we will have a school system or a school program throughout the states, equally divided between those who are in special education and those who are in regular education. And if our percentages are right, as we have gone along, we now fight the battle of who shall have control of education. We'll have fifty percent of the "plain, vanilla" kids making it and fifty percent who don't make it. Whatever labels you intend to assign, they will not be able to benefit

from the designed curriculum for our young children intended to bring them to an adult life prepared to take their place in society, constructively contribute to its economics, and make a contribution to its social welfare and its philosophy as well. If that's what we're intending - and we designed all of this - them we must accept the responsibility that we are now engaged in an action that is going to split education into two large groups; and children will have to make up their minds at kindergarden level, "do I want to go with the special people or do I want to go with the regular people?" It's all going to be dependent upon who has more money. If we design better units and prettier units, if we get more programmed instruction in the special units - we'll have more people over there. The better the facilities are, the more advisable it will be to get yourself so classified. Children of the future may shop for their most advantageous placement. They may look around to see where they have the best teachers, where they have the best facilities, where they have the best reputation. We're now getting set for that kind of a problem in our United States. If we can arrange to get the best teachers in special education we will automatically get more referrals and more diagnosis. If we can get better physical facilities, we can get better educational aides and techniques. We will automatically get more referrals. As long as we are able to present good learning situations to children, we will get the referrals. We may end up with special learning disability classes for children who failed in the special learning disability class.

We started some classes in Madison on these premises: Rule number one: You may not get into this class unless the principal of your school and the teacher of your class accept you throughout the remainder of this year as a regular member of your class and agree that you may be removed from that class at regular periods of time; but you are rightfully enrolled in that class. Second rule: The school people will designate the children and we will have no criteria with regard to whether you must be emotionally disturbed, or brain-injured, or what your problem might be. If the school people think you need special help, you're in!

You must be at least two years academically retarded in two or more subjects. There must be some remote suspicion that if we went to the full extent of a complete neurologic examination, covering six months of investigation, there might be a brain-injury there - and one final criterion; you don't fit into any other existing groups. We started the class with this guiding orientation: We were interested in developing a curriculum for children with learning disabilities; children who had failed the regular elementary school program. Item number one: The major job for any organism born into our culture is to become a pro-

ficient traveler in space. Terrestrial space is the most vital domain on which human beings exist, and the child's job is to acquire as much sophistication about space as he can. By design he was intended to be an erect locomoting organism; consequently the whole process of gaining control of his body in space against the pull of gravity, becomes a vital consideration for how he's going to make that erect locomotion.

Once out of the womb he lives in an energy surround. All that he's ever going to have to contend with is a continual bombardment of energies from all sources; which somehow are going to have to be organized into meaningful relationships. The Designer has given him six modalities by which he can organize all this energy. He's given him a gustatory system, an olfactory system, a tactual system, a kinesthetic system, an auditory system and a visual system with one command: "Get it organized to your advantage, use it for the acquisition of information, and most of all, when you get this information - once it has value to you and you begin to understand yourself - project that information so you can begin understanding other people and contribute to your world to advance its civilization over what has occurred before." In the course of this development, all of those information systems must be composited in learning what our society has already designated as symbolic fluency. He must learn to read. He's had six years to get ready for this by getting all those systems organized and put together. Children with learning disabilities have been unable to adequately organize their information processing systems to a point of excellence where they will be able to benefit from a particular curriculum. They are disorganized perceptual and cognitive beings. They are not only perceptually disorganized, they are posturally disorganized as well.

Every child in a learning disability group, must by the nature of his human design have a composite of problems that have contributed to his failure. He doesn't fail one thing, he fails because the total "him" that he brought to that learning class was not well enough organized to meet the demands of that particular test.

As we set up the experimental class, we followed this plan:

1. The class would be as unlike school as we could possibly make it because the children that we had were "expert" failures. Anything that had to do with school they already viewed themselves as being more likely to be failures than to be successful. We took all the desks out of the classroom. We covered the entire set of windows with a large black tarpaulin so that there was no natural light showing into the room. All we had were the very inappropriate lights from the ceiling. We had them take off their shoes as soon as they came into the room because we were concerned about building tactual organization by

whatever source we could. They spent most of the year barefooted. Their lessons were learned lying on their stomachs, standing, kneeling, sitting on the floor (Indian style), whatever way. It wasn't until after Christmas the first year that we put the chairs in the room. The teacher's desk was removed. The teacher wore slacks. The teacher crawled on the floor with the children and assumed the same position that the children did; and the children's reaction went like this: "This is just like home, it isn't school." "You mean I can sit any way that I want to?" The greatest discovery that they had was that they didn't have to sit at a desk to learn. They could learn looking at the ceiling. We also took the idea that the classroom itself had six surfaces of instruction, that there was a ceiling and a floor and there were four walls - that we better use all of it - We were concerned with giving children the opportunity to learn "up-space", "down-space," "side-space," "front-space" and "back-space". There was no fixed orientation because we wanted the children to learn that *they* determine the orientation and if they turned themselves, that became front-space. "It *was* side-space; when I turned, it became front-space," The orientation in space is based upon the reference system of the organism itself. Everything that we could do during the course of that year was calculated to make the children spatially proficient. We did nothing to teach reading, writing and arithmetic. We entered no specific academic areas (although we did use words, we did use numbers) but our system was to have the children invent their own language. We had them invent a language of signs so that we could help them to understand that the total system of language that we have is an arbitrary system, based upon an agreement among a group of people — that any group of people could sit down and organize a language unto themselves which other people would not understand, so long as those who participated in the organization understood. By way of preparing them for that eventual time when they sit down in adult life with an engineer and haven't the slightest idea what he is talking about; when they sit down with a physician and haven't the slightest idea what he's talking about - and discover throughout a lifetime, that there are various cultural islands and various professional islands, which have coined languages unto themselves understandable only to members of the clan and not to outsiders. In the course of this the children came to understand that that whole system of symbols printed on the reading page was an arbitrary system agreed upon by our society, and it could be changed at any time. As our society's experiences change, new words would have to be invented to represent those experiences. Fifteen years ago, the word "astronaut" was not in our American vocabulary. There were thousands of words that were not in our American vocabulary years ago because we didn't have the kind of experiences that required that kind of representation.

Teaching it to these little children helped them to understand what school was all about - why in some grades they were going to have to learn to parse, and to conjugate, and to diagram sentences and that this wasn't an idle maneuver - that it had some significance and meaning. So these little children in the learning disabilities class became conscious of the fact that: (1) They could invent the language. (2) They were following an arbitrary code in managing the language that did exist, and (3) That the code could be represented by any kind of sign that they chose, and that we had historically arbitrarily decided to represent it by what we now call print - but it could be represented by gesture, it could be represented by other kinds of things. This gave them an orientation to language; not for the purpose of; "Can we all talk in sentences"? "Can we now converse with one another"? "Can we use appropriate adjectives"? - not that kind of language orientation, but the organization of language. Communication was taught to them to mean understanding. They wrote spelling word or words upside down, sideways and backways; they did everything in that class upside down, sideways and backways - for one purpose - so that they would learn the reference system within themselves; that it was under their control to change it, and they could turn something upside down without changing its identity. If something were upside down, they could straighten it out by modifying their own spatial reference - such as turning themselves. They centered things through their legs like a football player, so that they would understand how the world looked like from that side. They did a great deal of work lying flat on the floor, on their backs, so that they might understand that you could spell up there just as well as down here - as well as out there. Spelling is something you carry inside of you, not on Friday mornings when the test is there; you carry it with you all through your lifetime. Most of the children did not know that the billboard reading that they were doing was reading, because they thought of reading as only that stuff that the teacher gave them in the book in school. As soon as they made that discovery, they also discovered: "Hey, I can read after all. I didn't know that stuff I was doing was reading until somebody helped me to understand." When you put - "Shell gasoline is the best" - they have no difficulty reading it. Its, "oh look! oh see!," that's the real problem. They can read the television commercials, the billboards; the church cards on Sunday and so on, but boy!, that Dick and Jane series, - that is rough.

In the course of this we set about simply to do one thing - to bring every child to the highest level of perceptual-cognitive organization that we could achieve, and then allow him to take advantage of what the regular school program had to offer. What the school program has to offer in the way we have conceived the curriculum, what we think

is valuable for our children to have by the time they reach adulthood, is fine. The thinking on major aspects of curriculum has been excellent. The assumption that every single child on his fifth birthday acquires the readiness for that curriculum, is wrong. I am not so concerned about changing the curriculum of regular or even special education, as I am about changing children in order to make it possible for them to take advantage of that fine curriculum. So learning disabilities, in my estimation, cannot be academically oriented. It must be oriented to the perceptual-cognitive organization of the child, irrespective of the academic process. It is only a preparation to take advantage of the academics. If we prepare a child sufficiently well to be a discriminator and a differentiator of auditory stimulation; if we arrange for him to have sufficient acuity and distinctiveness in visual discrimination, if we teach him how to perceive differences and similarities, visually, auditorially, kinesthetically and tactually; if we bring him to that first grade with all systems prepared and ready to go, we are convinced - at this point - that he will not fail the curriculum.

Our concern was to build a curriculum for learning disabilities that was non-academically oriented. This was hard going for quite awhile, because it meant that the teachers had to program away from the regular shelves - that is - whatever was usually on their shelves. They could not run off seat work on a ditto machine, they could not use the Frostig set of materials. We did a great deal of classwork with one eye patched, then the next eye patched and both eyes patched. We did a great deal of work with gloves on the hands. We did a great deal of work with no hands - trying to figure out how to get the job solved with no hands. We tried a deprivation process of taking various senses away so that they might experience the difference (for only one purpose again) that they might become more aware of the YOU in the learning. We were quite surprised to discover that the children that we had, at least, were unaware consciously of the fact that they could be called learners. They knew they were children - they knew they went to school - they knew they had already failed reading, failed arithmetic, failed spelling - they were unaware that they were learners. That was the biggest discovery that they made during the year. Second biggest discovery was the fact that they understood that they could succeed, and the third biggest discovery was when what happened in that unusual room made some sense in their regular classroom - and they came back and would talk about the fact, "I got fifteen correct in my spelling test this week and I never got fifteen correct in my whole life". "I'm the kid who used to come in with two correct, and now I got fifteen". "Didn't study any harder, didn't do anything different, but it's coming better now".

We are hard pressed at this point to give you a nice, neat factor analysis that would define with any real sense of validity that every single thing we did had a specific itemized contribution to their perceptual development. We only know that as a result of working on the preparation and development of the total organism - making it the most astute information getting piece that we could make - results occurred within the child's classroom.

We are now in the process of going through that neat process of getting statistical validation for this. The children, their parents and the teachers in their classroom, as well as most teachers in the system, who are acquainted with this, are not concerned about the statistics. They only know that we have discovered a way of working with children that is returning them to a classroom better than when they left it, This is our business — educating children.

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by

DR. RAY H. BARSCH

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P.O. Box 2070 1312 Johnson Street
Madison, Wisconsin 53706
(Attention Mr. F. A. White)

THE ROLE OF THE EDUCATOR IN THE DIAGNOSIS AND TREATMENT OF LEARNING DISORDERS

by

DR. N. DALE BRYANT, Director

I think the concept that Dr. Barsch has presented that we have to think of learning disabilities in terms of a disability for a specific curriculum and a specific way in which the child has been taught, is an important one. The child's disability in learning is obviously dependent upon the task and circumstances involved in the learning as much as the abilities the child brings to the task.

I am not as concerned as Dr. Barsch about the split between regular education and special education because I have the feeling that as the methodologies and special materials are developed in special education, regular classroom education will make greater use of these procedures and materials and, as a result, we are likely to get a reduction in the number of children with learning disabilities. But even though learning disabilities have to be thought of in terms of a curriculum, we do have a main stream of education designed for efficiency in dealing with the majority of students. This orientation to the majority, compounded with the tradition of educational practice over many years, produces a fairly standard curriculum that is not individualized enough to adapt to the particular abilities and deficiencies that each child shows in various learning tasks. Thus, we have, and will have for a long time, a number of cases that show extreme disability in learning under the standard curriculum that is successfully used with the majority of children. These children with extreme learning disabilities are quite visible but they represent only the extreme - that is, there are many, many more whose slighter disabilities are written off as expected variations in individual differences. As we learn to help the more visible and extreme cases of learning disabilities, we will have the means of improving the achievement of many of the low achievers whom we do not think of as having learning disabilities.

It seems to me that the educator has a key role in all three levels of diagnosis and treatment of learning disability: classroom, remedial sessions, and clinics. However, the educator is often significantly missing from many clinic staffs and often does not fulfill the needed diagnostic and treatment role in classroom and remedial sessions. I believe that the absence of the educator in clinic staffs and the lack of success sometimes found in classroom and remedial sessions are a result of inadequate conceptualization of learning disability as a problem. I would like to discuss with you these three levels of working with learning disability cases and then to outline three areas of information that are basic to effective diagnosis and treatment at any level.

The classroom is the level where learning disability is recognized and, as soon as it is recognized, we, as teachers, try to provide extra work and corrective work in the classroom. This classroom activity usually consists of repeating, at a somewhat slower rate in a more individualized way, the learning task that the child has not been able to learn in the regular classroom situation. Other classroom modification might involve reducing the demands that are made on the child or providing other ways for him to succeed where his disability is not such a handicap. When classroom remedial efforts fail, and very frequently they do, the child may be referred to remedial work or clinic study. But, regardless of what work is done at other levels, there must be integration with the classroom activities because the child must function in a classroom even though it may be a modified classroom in some respects. The teacher must understand the problem, possibly to provide remediation and treatment or, if these are handled at other levels, at least so as to not interfere with the treatment being provided by the remedial specialist or clinic.

When a child is referred for remedial work, the remedial help often utilizes the same teaching procedures already tried in the classroom but even more individualized and given by a person supposedly more highly trained. In addition, the work may be supplemented with a variety of other procedures thought to be of remedial value. Just as extra classroom work is useful in some cases, remedial work is similarly useful. Unfortunately, however, many children with learning disabilities make little or no consistent progress even with intensive remedial efforts. In most of these instances of failure, the remedial work has been based upon application of some method that has previously failed and not upon a clear understanding of the child's abilities and limits as they apply to the learning task. When traditional remedial procedures have not been successful, the next step is usually to refer the child to some kind of clinic, either within the school or in some outside agency.

Referral to a clinic frequently represents a pseudo-solution for the teacher, the remedial specialist, and even the school administrator because it implies a passing on of responsibility. Obviously the clinic can only partially contribute to the solution of a learning disability problem and the responsibility is shared by the school as well as the clinic. The clinic provides a much more intensive case study of the child, but, frequently, in spite of the very good work of the clinic, the school personnel feel that the clinical study has done little to contribute to the practical solution of the learning disability problem. Teachers will often complain that the clinic report confirms that the child has a learning problem, clarifies many of the associated problems that might be related to it, and even provides for some work with the child and his parents, but that the clinic report does little to help the classroom teacher or the remedial specialist know what to do in overcoming his learning problem. This failure of many clinics often results from an insufficient focus on the learning disability aspects of the child's problems and poor communication with school personnel about the specific abilities and limitations of the child in the learning situation. I believe that these problems result many times because an educator is not included in the clinic staff.

Let me describe very quickly a typical, rather well staffed clinic for studying learning disability cases. It might be a clinic in the school or a clinic in the community such as a community child guidance clinic. The clinic is staffed with a social worker to talk with the parents to get an understanding of the dynamics of the child's interaction with his family. There is a psychologist to get measures of intellectual ability and, hopefully, quite a broader range of psychological, educational, and neuropsychological measures. There is a psychiatrist, pediatrician, and a neurologist to contribute their own understanding of the child and his problem. The reports of the staff along with the supplementary data, such as the EEG reports, are all brought together at the conclusion of the case study and, from this, a very valid understanding of the child's problem may emerge.

However, this perfectly valid understanding is not necessarily helpful to the teacher. The teacher already knows the child has a specific learning disability, that he is disturbed or upset about his learning problem, that he has poor self concepts and, perhaps, that he is in conflict with his parents about his inability to achieve, but this does not help the teacher to make specific modifications of the learning situation. Frequently, the much more sophisticated report of the clinic, while contributing greater understanding, provides no specific help. I believe this lack of useful communication is because a key person is missing

from the clinic staff and the clinic deliberations. This person, an educator, teacher, or educational psychologist, skilled in analysis of learning tasks and application of learning principles, is needed to keep the focus of the study upon the learning disability, upon what are we asking this child to do that he is unable to do and how can we structure the learning situation so that the task is within the abilities of the child. This requires not just a general understanding of the child's disability, but a specific understanding of what the learning tasks consist of. Sometimes clinics include remedial educators such as remedial reading specialists; yet their work is frequently peripheral to the case study and their orientation is too often toward a methodology rather than an understanding of the learning tasks. I am not implying that the contribution of the psychologist, psychiatrist, remedial specialist, social worker, and all others involved in a clinical study of a child are not both valid and useful. Understanding the child, helping him to understand his problem, and work with his parents are all valuable aspects of clinic work. However, no matter how successfully these activities are handled by the clinic, they must be incorporated with the more detailed understanding of the learning task and the child's abilities and disabilities, if effective treatment is to be provided.

In other words, I believe that we need in the classroom, in remedial work, and in the clinic a teacher or clinical educator who can conceptualize the learning task - whatever learning task we are asking the child to perform and which he is unable to perform - the very thing that defines his disability. As teachers or clinicians, I doubt that we often try to conceptualize what a particular learning task requires of the child. We are used to looking at tasks rather globally from the fact that they are simple and easy to us as adults with most of our reading, arithmetic, and other basic skills developed to the point that they are automatic. We are not used to breaking down the skills in terms of their component parts and the sequence of development that must be followed in order to learn these. We are encouraged in our global and non-analytical way of looking at basic skills by the fact that so many of the normal children have a tremendous ability to abstract common elements from complex situations and to generalize them to new situations. With the highly learning "abled" child, we can mess up any kind of teaching presentations and, regardless of how we structure the task, regardless of what materials we use, the "able" child is able to learn much that we are presenting on the basis of their own capabilities. Even for the children without a high learning ability, if we go over the complex presentation enough times, they will begin to get a vague idea of what we are trying to teach them. It is only a few cases who are not able to make sense out of our complex presentation and these we explain as being

learning disability cases. In contrast, the teacher who understands the developmental steps that are involved in learning any particular task, can present a sequence of simple tasks, each one building a higher level of skill so that the skill can be learned by the disability child and, in addition, can be more efficiently and more clearly taught to the large mass of low achievers. At the same time, this simpler presentation can be as adequately learned by the learning "abled" as the more complex presentation.

There are three general areas of knowledge that are crucial to the diagnosis and treatment of learning disabilities and the educator provides crucial information to all three of these areas.

1. Perhaps the most basic area of knowledge is that just discussed - the knowledge of the multitude of component steps necessary for learning any skill. The basic technology of such knowledge is programming for learning as is done for teaching machines. I am not concerned here with the teaching machine but only with the process of analyzing learning tasks and developing a sequence of steps necessary for performing the task. No teacher can afford to be unfamiliar with programming concepts and techniques - particularly the teacher, remedial specialist, or clinical educator who wishes to help the child with learning disabilities.

2. Equally important to diagnosis and treatment is a detailed understanding of the nature of the disability.

3. The third area of knowledge important for the teacher, remedial specialist, or clinical educator is a blending of the first two. Once the learning task is understood and the disability is understood, the third area involves modifying the classroom or remedial program to avoid or overcome the handicaps by progressing step by step toward accomplishment of each learning task. A thorough understanding of learning principles is basic to successful work in this third area of knowledge.

Let's take as an example just one kind of learning disability, the dyslexic child, the child who is having relatively severe problems in reading. One of the things that becomes quite apparent during diagnostic study is that this child has difficulty in abstracting the common element from a complex learning task. The normal child comes into the first grade classroom and he sees words tacked to the chair, to the board, and to the table; he goes through the books where words are associated, and we are really giving him a rather complex task. He has to make many discriminations, he has to make many associations, and yet the normal child tends to make these easily. But one of the things that we find in the clinic is that a child with learning disability frequently cannot

abstract from this common experience if it is a complex experience, but can learn as soon as the experience is simplified, for then he only has to focus upon one thing. Let me give you a few examples in the way of some experimental tests: First of all, we want the child to learn to make a simple association: for example, of a picture with a sound, a non-sense syllable. Let's say we present four pictures and four nonsense syllables, and we want the child to learn them by merely presenting each picture and giving him the names. Then we allow him enough time to say them - the name as we represent each picture. If he says them correctly, we say, yes, that's right, and if he says them incorrectly, we say, no, that's so and so. In other words we go through this until he has learned all four associations of pictures with the sound. The normal child does this in between three or four trials. In going through the four cards, he has the correct sound association with each. If we take children with fairly severe reading problems, they require an average of thirteen or fourteen trials to learn the same associations and many of them are not able to perform the task at all. If we simplify the task to a smaller number, to be learned at any one time, the dyslexic child can handle it much more like a normal child does. But again, as we increase the complexity of the situation, the child with a learning disability becomes more and more handicapped in comparison with the normal individual.

Frequently, the child with a learning disability has not learned to utilize all of the perceptual cues that the normal child learns. For example, in recognizing words, if a child has learned a word, and we go through a systematic procedure to make sure that he thoroughly knows the word, and can pick it out, the normal child - who has had no trouble in learning in school - is able to identify differences if you change a vowel in the middle of the word, if you add something in the middle of the word, if you omit something in the middle of the word, or switch letters around. The child with rather severe learning disabilities almost never makes a mistake with respect to the initial letter. In other words, he is discriminating and using initial letters but he will look at words that have been changed drastically by omitting letters, adding letters, substituting letters, and he will see nothing wrong with this and will not be aware that it is different from the original word that he learned.

There are many other problems that the child with learning disability shows and frequently they are associated problems, only indirectly related to the particular kind of handicap that he has. For example, the reading disabled - the dyslexic child - is likely to have many other associated problems. In one particular clinical study, we found about two-thirds of the children with severe reading problems showed some poor motor development as measured by a test like the Lincoln Oseret-

sky Test of Motor Development; e.g. motor development that was totally below the norms for their age. This is a test that takes about an hour to give and does provide a Binet type scale measuring motor development, coordination, balance, and so on. Now this doesn't have anything to do with the reading on a superficial level, but it certainly has something to do with disorganization of all the senses that Dr. Barsch spoke of. Somehow the child has not gotten to the place where he can function effectively in terms of motor development or in terms of learning to read. The first thing we thought when we ran across this was that the norms on the test were wrong. You know, any time you start seeing about two-thirds of any sample falling below the norms, you don't believe it. When we ran control studies, the control groups fit the norms very well. Of these children who fell below the norms, about a third were identified by neurological examination, about ten percent were identified on pediatric examination, and about a third were identified in terms that something in the history suggested a clumsiness or motor difficulty. But, all in all, taken together, it means that here we have an associated factor where about half of the motor handicapped children were not picked up on these kinds of examinations. So we can have a great deal of variety in terms, not only of the initial problem, but of the associated problems that go along with it. Other associated problems may involve a poor self concept, conflict with parents, etc. Only when we truly understand the disability of the child in all of its aspects, can we help him in all of these aspects.

But what can the teacher or educator do to understand the child's disability? Whether she's on a clinic staff, whether she's doing remedial work, or whether she's doing classroom work, the teacher must still be a diagnostician. She has to get the idea of what it is that this child is not able to do. Again, the teacher's knowledge of programming aids her in specifically diagnosing the particular skill components that the child has trouble learning. Testing (almost like a remedial procedure) the child's ability level, by using a systematic step by step sequence of tasks of increasing complexity, is as important as the test results from the psychological examination.

I think that in terms of modifying the instruction for the learning disability child, we can come down to a series of principles, a series of points, that we need to be guided by. One is that we must start the child at the most basic level where he's having problems - now this may well be back in the perception of space, it may be back in the early stages of visual discrimination. This, of course, is merely a restatement of the old platitude of "start the child where he is." But I'm afraid of that "start the child where he is," because, so frequently, this means reading

at 1.2 grade level, so we start him at 1.2 grade level; and I'm not as concerned with his grade level as with the kind of basic skill he is showing. For example, I see many children, and I'm sure that many of you do, that are reading perhaps second or third grade level and most of the errors and mistakes that they are making are first grade errors and mistakes. Many of them are very simple visual discrimination errors; so that it's not just a matter of establishing a level, but actually thinking in terms of the concepts of what is involved in any particular learning task (our first area of knowledge). Regardless of whether or not we are working with a child who has an established etiology of brain damage or whether the child is only suspected of having neurological dysfunctioning, or whether there is no suggestion of any problem except learning difficulty, we are in a process of trying to help this child by means of helping him succeed in learning. I agree that this is one of the most valuable therapies. We need to develop understanding on the part of the child and the parents - we need to utilize behavioral modification techniques but also, we're going to have to get him to go up these stair steps of increased learning skill. Most children with learning disabilities can make steady regular improvement as long as we will tend to teach one element at a time and then integrate them. We can succeed as long as we teach one thing at a time and do not throw three or four of five things at a "child" at a time, expecting him to sort them out and learn all of them on his own.

Let me just take an example of this: a child is having trouble in discriminating between certain letters, either visually or in hearing - let's take auditory discrimination. Let's say that a child is unable to hear the difference between a "b" and a "d" (you see they are rather difficult to hear), then how can we possibly expect him to go and work with visual images and learn to differentiate these letters? We must first establish a discrimination because if he hears us say that's a "b", not a "d", he can make no differential association. In other words, if it all sounds alike to him, then he's not going to learn differences. The same thing is true if he is learning to associate sounds; he may be able to correctly identify sounds of letters in a very simple situation but may be unable to do so in a very complex situation. How many times do you see the child who can get a word in one sentence and cannot get it in another line on the same page, perhaps because this is a somewhat more complex situation? We can't merely think of what the task is that the child is trying to do, but of all the other factors that are impinging upon his performance of the task. In my experience I have found that with most children with learning disabilities if we take the most basic thing that he is having difficulty with - and if we focus on this, and teach this, the child can make relatively good progress - that he can

learn when we do not give him too much at one time. For example, if a child is unable to make a simple letter discrimination, it would be a mistake to go on to differentiation between words using that letter. We can't jump from his ability to discriminate letters alone to discriminating letters in words unless we go through a step and see that he can perform letter discrimination in words correctly. I think we teachers tend to perpetuate learning disability sometimes because we try to take too big a step and because we don't try to isolate the component causing a child trouble, and teach for this. Let me just take another example here: if a child is confusing the letters "m" and "n", he will go on confusing them even though the teacher may frequently stop in a reading situation and say, "no, that's not right, that's so and so." In fact, he will get the letter correct half of the time, just by chance. However, if we want him to learn to consistently differentiate between "m" and "n" then certainly we want to know if he can differentiate between the two letters when they occur alone - without being in words. If he can do this, we will want to know if he can differentiate between "m" and "n" in the initial position of words when the rest of the word is identical. In other words, we're not trying to get him to differentiate between man and nip but instead, between map and nap. In this example, the child doesn't have to do anything else but just discriminate this letter when it occurs in the initial position of a word, which is the easiest. We can continue in this manner through higher levels of discrimination. So, if we want him to learn to discriminate between "m" and "n" in any situation, we need to teach him in a step by step basis and we have to go on and teach him through the most complex experiences that he will normally encounter. In other words, he will have to differentiate "m" and "n" in regular, everyday reading where he doesn't know what is coming up. So, we have to start with the isolated, but we have to develop until he is able to handle this more complex discrimination.

I sometimes think of a child with learning disabilities as being like a juggler or, perhaps, all of us are like jugglers. You know we are trying to do several things at once and the number of discriminations and separate perceptual and associational elements that are involved in word recognition are certainly enormous in number. However, if we can get a child to learn something well, it becomes automatic. Then, in effect, it's almost as if we had eliminated one of the balls that he is trying to juggle - because he no longer has to worry about the automatic learning. What I am suggesting is not only should we teach simple tasks, and we should teach them in increasingly complex situations, but that also we should teach them until it is an automatic response - to the point where the child can make the response without having to think about it. We can teach each step of a skill so that it is learned as an automatic

process by making the task simple enough and asking him to respond immediately. As tasks increase in complexity, we will eventually get a child who can see something and respond immediately rather than trying to stop and figure it out. . .

But do you ever have the problem that once a child has learned something, he comes back the next day and he doesn't remember it any more? This is a common problem - so we keep teaching, and we keep losing. It is as if a child takes two steps forward and slides back one. There are two things that we can do to correct this. Do you remember back in your educational psychology the old learning curve, or, as I would prefer to call it, a forgetting curve? Let me just sketch it on the board. The ordinate is in terms of the amount that a person has learned. In other words, the top represents 100% learning for this one task. The abcissa represents the passage of time. When something is learned there is a very rapid forgetting that starts immediately. The curve comes down like a ski jump. In working with disability children, I feel that the slope of forgetting is frequently much faster and much greater - that they lose more over time than more normal children. We teach something and yet soon the child has forgotten it. What can we do specifically in the remedial situation or in the classroom situation that will help overcome that? Once a child has learned something to an adequate level, he knows it and this is the best time to give a little extra practice, a little review. Not the next day when he's way down on the curve and has to learn all the way back up to the top again but, instead, review immediately after learning when he is at the top of the curve. A little extra review, once he has learned something, changes the slope of the forgetting curve so it does not go as low. The result is that the little bit of time that we take - with extra review, a little over-learning - will tend to pay big dividends in the fact that this child is more likely to remember the next day and not just to have forgotten, as, perhaps, is his typical behavior. This does not mean that other times are not useful for a review, but review immediately after learning is likely to pay the greatest dividends for the amount of time invested.

Let me review some of the suggestions made above. We need to start with the most basic element that the child doesn't know, and that means that we have to really understand what it is we are trying to teach him and how this is broken down in steps of learning. Knowledge of programming a learning task, knowledge of the child's specific disabilities, and knowledge of learning principles are all essential if we are to help the learning disability child. We have to make these steps small enough that he can take them. If a step is too big, he just batters himself against this and a great deal of negative learning takes place. In effect, if an

individual makes an incorrect response and feels that this is a correct response for even thirty seconds, he has established some negative learning. You may then tell him that that is wrong, but, in effect, he has some negative learning that must somehow be unlearned before you can teach him the correct response. So, we not only need to make the steps small enough that he can take them, but I think we have to be very careful not to confuse the child, not to be detrimental to the child by giving him a great deal of negative learning and confusion.

We learn things primarily by doing them correctly, knowing that we have done them correctly, and on the basis of this, establish a level that we can go on and step up to a higher level. How correct should the child be? Well, completely apart from the factor of effective learning principles, a handicapped child is an expert at failure, and the very act of failing is something that he has done a lot of. If we want to bring about an improvement in self concept and attitude, if we want to improve his motivation, one of the most important things that we can do is give him success experience. But, besides that, if we want a child to make the most rapid gain in learning, we need to have him make basically correct responses and need to have him know that they are correct... an immediate feed back. I'd like to pose a couple of "rules of thumb." One "rule of thumb" is that the child should be correct in about 90% of the responses that he makes and, that whenever you have a child who is making a whole series of errors, he is providing you, as a teacher, with important diagnostic information. He is saying right then and there, that here is a task which is too difficult. I think that the important thing is that we utilize this diagnostic information and modify this situation rather than going on and on and on - letting him build up all the negative learning and all the confusion that will perpetuate his problems. I think we need another "rule of thumb" - that the child should make some noticeable improvement each time we work with him. I'm sometimes very disturbed when a teacher will say to me, "Now I've worked with so and so for six months and we haven't made any progress. Do you suppose I could be doing something wrong?" I feel that if you work with a child for several sessions, and you do not make some progress, then you are doing something wrong. Now, figuring out what it is, is a little more difficult. Whenever the child begins to make errors, re-examine the situation. Of course, it may not be just the task you are asking him to do; it may be that he is coming in from a different situation where he is upset, something may have happened so that he cannot attend to his learning task; but whatever the situation it's not going to help him to go on making errors. If we want to see that a child is not only achieving and being correct but, that in so doing he is taking a step to a little higher level of skill, then we have to have

a pretty good awareness of what we are expecting from him and what we're asking him to do.

So these, I think, are the main points that we need to be concerned about. We'll never be able to send to a clinic all of the children who are showing learning disabilities; and, when we send children to the clinic, we frequently get back a very valid diagnosis, but one which is not particularly useful in defining the way in which the teacher should modify her behavior in the classroom, the way the remedial teacher should operate. Frequently, the diagnosis doesn't really get down to the more specific details of the disability. If a teacher can take an approach where there is an awareness of what she is asking the child to do, if it is possible to select small increments that the child can achieve - and with learning disability cases this usually means that we have to present what we want him to learn in isolation where he can handle it - and then go on and teach him to master it in more complex situations. However, in doing that, we can teach him not to struggle but to learn each component to an automatic response, where he responds with it, naturally, automatically, without having to sit and puzzle over it.

If we overlearn, if we have a child overlearn each step, his retention will be higher and, if we subsequently review the material, he will not lose this retention. I think that we can take the child with a learning disability and can achieve - perhaps, a little more slowly - but can achieve the kinds of skills that we want him to have; that we can overcome or circumvent the disability. This can be done sometimes in some part of the regular classroom. The difficulty there frequently centers upon the fact that there are so many children and it is difficult to spend the time with the child.

But again, we have more and more programmed materials, and teachers are more and more learning to program their own teaching, so that there is a greater individualization. Perhaps if we can take this approach certainly with not only the more severe cases, but also with the less severe cases, instead of increasing the number that we assign to classes for the learning disabilities, perhaps we will start on our way of keeping them in the regular classroom or rapidly returning them to the regular classroom.

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